Applicant : Shawn Shui-on LEUNG
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In the Claims

Please cancel claims 16-19 without prejudice to the Applicant's rights to pursue the subject matters in a future application.

Please amend claims 1, and 4-9 by inserting the underlined materials and deleting the materials in the brackets:

--1. (Amended) A re-engineered, or framework (FR)-patched immunoglobulin containing the heavy and/or light chain variable region sequences from a parent antibody, in which at least one of the compartmentalized framework sequences, defined as FR1, FR2, FR3 and FR4 are replaced, or patched by the corresponding framework sequences from the heavy and light chain immunoglobulin variable region of a different species, wherein said re-engineered immunoglobulin chain(s) comprises framework sequences derived from at least two different sources of different immunoglobulin chains, wherein said different immunoglobulin chains can be sourced from different immunoglobulins of the same species or from different immunoglobulins of different species, and such FR-patched immunoglobulin binds specifically to an antigen with affinity [comparable to] within ten-fold, or within 3-fold of, that of the parent immunoglobulin with the proviso that not all the replaced FR1, FR2, FR3 and FR4 are from the same framework of a single immunoglobulin chain. --

--4. (Twice Amended) A re-engineered, or FR-patched immunoglobulin according to claim 1, in which the particular FR chosen for patching or replacing each corresponding FR in the parent immunoglobulin:

a. exhibits the highest degree of homology, or at least 60%, to the corresponding parent FR;

b.exhibits the highest degree of sequence homology to the corresponding parent FR, preferably [100%] identical, or contains conservatively similar amino acids[, such as, gly, ala; val, ile, leu; asp, glu; asn, gln; ser, thr; lys, arg; and phe, tyr,] at the three amino acids immediately adjacent to the flanking CDR's; and

c.contains identical, or conservatively similar amino acids [(as listed in claim 4b)] to the corresponding parent FR at positions known to be close to, or have interactions with the CDR's/antigen binding site, as evaluated by computer modeling, crystal structure, published information, or prior experience.--

--5. (Twice Amended) A re-engineered, or FR-patched immunoglobulin according to claim 1, in which the particular FR chosen for patching each corresponding FR in the parent immunoglobulin:

a.exhibits the highest degree of homology, or at least 60%, to the corresponding parent FR;

b.exhibits the highest degree of sequence homology to the corresponding parent FR, preferably [100%] identical, or contains conservatively similar amino acids [(as listed in claim 4b)] at the four amino acids immediately adjacent to the flanking CDR's; and

c.contains identical, or conservatively similar amino acids [(as listed in claim 4b)] to the corresponding parent FR at positions known to be close to, or have interactions with the CDR's/antigen binding site, as evaluated by computer modeling, crystal structure, published information, or prior experience.--

--6.(Twice Amended) A re-engineered, or FR-patched immunoglobulin according to claim 1, 2, 3, 4 or 5 containing the heavy and/or light chain variable region sequences from a

parent antibody, in which the particular FR chosen for patching each corresponding FR in the parent immunoglobulin comprises re-introduced amino acids from the parent immunoglobulin framework outside the Kabat and Chothia CDRs, wherein the [back mutated] re-introduced amino acids replace corresponding amino acids in the patching FR , which is the particular FR derived from a different source used for patching, or that replaces the original FR of, the parent immunoglobulin, and each of said [back mutated] re-introduced amino acids:

a.is adjacent to a CDR in the donor immunoglobulin sequence, or

b.contains an atom within a distance of 4 Å of a CDR in said re-engineered immunoglobulin.--

--7.(Twice Amended) A re-engineered, or FR-patched immunoglobulin according to claim 1, 2, 3, 4 or 5 containing the heavy and/or light chain variable region sequences from a parent antibody, in which the particular FR chosen for patching each corresponding FR in the parent immunoglobulin comprises re-introduced amino acids from the parent immunoglobulin framework outside the Kabat and Chothia CDRs, wherein the [back mutated] re-introduced amino acids replace corresponding amino acids in the patching FR, which is the particular FR derived from a different source used for patching, or that replaces the original FR of, the parent immunoglobulin, and each of said [back mutated] re-introduced amino acids:

a.is adjacent to a CDR in the donor immunoglobulin sequence, or

b.contains an atom within a distance of 5 Å of a CDR in said re-engineered immunoglobulin.--

--8.(Twice Amended) A re-engineered, or FR-patched immunoglobulin according to claim 1, 2, 3, 4 or 5 containing the heavy and/or light chain variable region sequences from a parent antibody, in which the particular FR chosen for patching each corresponding FR in the parent immunoglobulin comprises re-introduced amino acids from the parent immunoglobulin framework outside the Kabat and Chothia CDRs, wherein the [back mutated] re-introduced amino acids replace corresponding amino acids in the patching FR, which is the particular FR derived from a different source used for patching, or that replaces the original FR of, the parent immunoglobulin, and each of said [back mutated] re-introduced amino acids:

a.is adjacent to a CDR in the donor immunoglobulin sequence, or

b.contains an atom within a distance of 6 Å of a CDR in said re-engineered immunoglobulin.--

--9.(Twice Amended) A re-engineered, or FR-patched immunoglobulin according to claim 1, 2, 3, 4 or 5 containing the heavy and/or light chain variable region sequences from a parent antibody, in which the particular FR chosen for patching each corresponding FR in the parent immunoglobulin comprises re-introduced amino acids from the parent immunoglobulin framework outside the Kabat and Chothia CDRs, wherein the [back mutated] re-introduced amino acids replace corresponding amino acids in the patching FR, which is the particular FR derived from a different source used for patching, or that replaces the original FR of, the parent immunoglobulin, and each of said [back mutated] re-introduced amino acids:

a.is adjacent to a CDR in the donor immunoglobulin sequence, or

b.is capable of interacting with amino acids in the CDRs, or

c.is typical at its position for the species of the particular FR chosen for the patching, and the replaced amino acid in the said FR is rare at its position for the species from where the FR is derived.--